IAP15 Rec'd PCT/PTO 07 SEP 2006

Approved for use through 3/31/2007. OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## TRANSMITTAL LETTER TO THE UNITED STATES

ATTORNEY'S DOCKET NUMBER

	DESIGNATED/ELECTED	1455-062610					
CON	CERNING A SUBMISSIC	(14 APPLICATION OF (14 Known, see 37 CFR 1.5)					
	TIONAL APPLICATION NO. 005/000650	INTERNATIONAL FILING DATE 09 March 2005	PRIORITY DATE CLAIMED 09 March 2004				
TITLE OF INVENTION A LARGE-AREA SHOWER ELECTRON BEAM IRRADIATOR WITH FIELD EMITTERS AS AN ELECTRON SOURCE							
APPLICANT(S) FOR DO/EO/US Byung-Cheol LEE et al.							
		atos Dosignatod/Elected Office (DO/E)	O/LIS) the following items and other information:				
	pplicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:  This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.						
2.	This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.						
	This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.						
	✓ The US has been elected (Article 31).						
5.	A copy of the International Application	n as filed (35 U.S.C. 371(c)(2))					
	a. is attached hereto (required	only if not communicated by the Internation	nal Bureau).				
	b.  has been communicated by	the International Bureau.					
	c. is not required, as the applic	cation was filed in the United States Receiv	ring Office (RO/US).				
6.	An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).						
	a. is attached hereto.						
	b. has been previously submitted under 35 U.S.C. 154(d)(4).						
<sub>7.</sub> ✓	Amendments to the claims of the Inte	rnational Application under PCT Article 19	(35 U.S.C. 371(c)(3))				
	a. are attached hereto (required only if not communicated by the International Bureau).						
	b. have been communicated	by the International Bureau.					
	c. have not been made; however, the time limit for making such amendments has NOT expired.						
	d. 🗹 have not been made and will not be made.						
8.	An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).						
9.	An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).						
10.	An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).						
Items	11 to 20 below concern document(s	or information included:					
11.	An Information Disclosure Statement	under 37 CFR 1.97 and 1.98.					
12.	An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.						
13. 🗸	A preliminary amendment.						
14.	An Application Data Sheet under 37 CFR 1.76.						
15. 🗀	A substitute specification.						
16.	A power of attorney and/or change of address letter.						
17.	A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.						
18. 🗀	A second copy of the published Intern	ational Application under 35 U.S.C. 154(d)	(4).				
19. 🔲	A second copy of the English languag	e translation of the international application	n under 35 U.S.C. 154(d)(4).				

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. Page 1 of 3

## IAP9 Rec'd PCT/PTO 0 7 SEP 2006

PTO-1390 (Rev. 07-2005)
Approved for use through 3/31/2007. OMB 0651-0021
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

0.5. APPLICATION NO. (if 150 mg., see 37 CFR 1.5)	PCT/KR2005/000650		1455-062610	CKET NUMBER			
20. Other items or information: International Preliminary Report on Patentability with Annexes and Amended Sheets of the International Application (8 pp.)							
Abstract page for insertion into application (1 sheet)							
The following fees have been submitted	CALCULATIONS	PTO USE ONLY					
21. A Basic national fee (37 CFR 1.492(a))	\$ 300.00						
22. Examination fee (37 CFR 1.492(c))							
If the written opinion prepared by ISA/US or the inter by IPEA/US indicates all claims satisfy provi	\$ 200.00						
All other situations							
23.							
If the written opinion of the ISA/US or the Internation IPEA/US indicates all claims satisfy provision							
Search fee (37 CFR 1.445(a)(2)) has been paid on the International Searching Authority			\$ 400.00				
International Search Report prepared by an ISA other previously communicated to the US by the IB							
All other situations							
TOTAL OF 21, 22 and 23 =	dia anno anno 100 abanto (a	and to differen	\$ 900.00				
Additional fee for specification and drawings file sequence listing in compliance with 37 CFR							
electronic medium) (37 CFR 1.492(j)). The fee is <b>\$250</b> for each additional 50 sheets	of paper or fraction thereof.						
	additional 50 or fraction	RATE					
21 0	up to a whole number) )		\$ 0.00				
Surcharge of \$130.00 for furnishing any of the search		x \$250					
after the date of commencement of the national stag	e (37 CFR 1.492(h)).		<sup>\$</sup> 130.00				
CLAIMS NUMBER FILED	NUMBER EXTRA	RATE	\$	<u></u>			
Total claims 15 - 20 =	0	× \$ 50	\$ 0.00	ļ			
Independent claims 2 - 3 =	0	× \$200 + \$360	\$ 0.00	<del></del>			
MULTIPLE DEPENDENT CLAIM(S) (if applicable)	\$ 0.00	<b>_</b>					
Applicant claims small entity status. See 37 CFF	\$ 1,030.00						
	\$ 515.00						
Processing fee of \$130.00 for furnishing the English	\$						
claimed priority date (37 CFR 1.492(i)).		· · · · · · · · · · · · · · · · · · ·					
		NATIONAL FEE =	\$ 515.00				
Fee for recording the enclosed assignment (37 CFR by an appropriate cover sheet (37 CFR 3.28, 3.31).	\$ 0.00						
	\$ 515.00						
			Amount to be refunded:	\$			
			Amount to be charged	\$			

AP9 REC D PCT/PTO 0 7 SEP 2006 PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

a.		is enclosed. nation on this form may become	to cover the above fees. ired, or credit any overpayment to Deposit e public. Credit card information should not		
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO:  Kent E. Baldauf The Webb Law Firm 700 Koppers Building 436 Seventh Avenue Pittsburgh, PA 15219-1845 Telephone: (412) 471-8815 Facsimile: (412) 471-4094		SIGNATURE Kent E. Baldauf  NAME 25,826  REGISTRATION NUMBER			

## 10/591894 IAP9 Rec'd PCT/PTO 07 SEP 2006

PATENT APPLICATION/PCT IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:	ATTORNEY'S DOCKET NUMBER
Byung-Cheol LEE et al.	1455-062610
PCT/KR2005/000650	
	ON BEAM IRRADIATOR WITH FIELD CLECTRON SOURCE"
MAIL STOP PCT Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450 EXPRESS MAI	L CERTIFICATE
"Express Mail" Label Number EV908695232	EUS
Date of Deposit September 7,	2006
I hereby certify that the following attac	ched paper or fee
<ul> <li>A Filing Under 35 U.S.C. 371 (3 pp. – in</li> <li>Application Data Sheet (4 pp.);</li> <li>Preliminary Amendment (9 pp.);</li> <li>Abstract Insertion Page (1 p.);</li> <li>Copy of International Publication Nathernational Search Report, Specificate International Preliminary Report on Sheets (8 pp.); and</li> <li>Check in the amount of \$515.00</li> <li>is being deposited with the United States</li> </ul>	To. WO 2005/086201 A1 Front Page and ion, Claims, Abstract and Drawings (21 pp.); Patentability with Annexes and Amended  Postal Service "Express Mail Post Office to the date indicated above and is addressed to the
(Typed name of person	y N. Welday n mailing paper or fee)
Signature of person m	. Weldaynailing paper or fee)